

Appl. No. 10/605,416
Amdt. dated February 26, 2006
Reply to Office action of November 30, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

5 Listing of Claims:

Claims 1-19 (canceled)

Claim 20 (currently amended): A liquid crystal display comprising:

- a lower substrate;
- 10 an upper substrate positioned parallel with the lower substrate; and
- a plurality of pixel units, each of the pixel units including an upper transparent electrode, a liquid crystal layer, a lower transparent electrode, and a color filter formed on the upper substrate and above the lower substrate;
- wherein a surface of each color filter has a plurality of curved convex structures, and
- 15 the upper transparent electrode directly contacts and covers the curved convex structures on the surface of each of the color filters.

Claim 21 (canceled)

- 20 Claim 22 (currently amended): The liquid crystal display of claim 20 wherein the surface of each color filter which has the plurality of curved convex structures is able to scatter light.

- 25 Claim 23 (currently amended): The liquid crystal display of claim 20 wherein a distribution density of the curved convex structures is used to regulate brightness and a color deepness of the liquid crystal display.

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Claim 24 (previously presented): The liquid crystal display of claim 20 wherein each of the pixel units respectively comprises a reflection layer positioned between the color filter and the lower substrate.

- 5 Claim 25 (previously presented): The liquid crystal display of claim 24 being a reflective liquid crystal display.

Claim 26 (previously presented): The liquid crystal display of claim 24 wherein each of the reflection layers includes an opening.

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Claim 27 (previously presented): The liquid crystal display of claim 26 being a semi-transmissive and semi-reflective liquid crystal display.

- 15 Claim 28 (previously presented): The liquid crystal display of claim 20 further comprising a plurality of thin film transistors for respectively controlling each of the pixel units.

Claim 29 (currently amended): The liquid crystal display of claim 28 wherein the thin film transistors are formed on the lower substrate and below the upper substrate.

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Claim 30 (canceled)

Claim 31 (currently amended): A liquid crystal display comprising:

- 25 a lower substrate;
an upper substrate positioned parallel with the lower substrate; and
a plurality of pixel units, each of the pixel units including an upper transparent electrode, a liquid crystal layer, a lower transparent electrode, and a color filter formed on the upper substrate and above the lower substrate;

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wherein a surface of each color filter has a plurality of curved convex structures, and each of the pixel units respectively comprises a reflection layer positioned between the color filter and the lower substrate.

- 5 Claim 32 (previously presented): The liquid crystal display of claim 31 wherein the color filter is covered with the upper transparent electrode directly.

Claim 33 (currently amended): The liquid crystal display of claim 31 wherein the surface of each color filter which has the plurality of curved convex structures is able to scatter
10 light.

Claim 34 (currently amended): The liquid crystal display of claim 31 wherein a distribution density of the curved convex structures is used to regulate brightness and a color deepness of the liquid crystal display.

15 Claim 35 (previously presented): The liquid crystal display of claim 31 being a reflective liquid crystal display.

Claim 36 (previously presented): The liquid crystal display of claim 31 wherein each of
20 the reflection layers includes an opening.

Claim 37 (previously presented): The liquid crystal display of claim 36 being a semi-transmissive and semi-reflective liquid crystal display.

25 Claim 38 (previously presented): The liquid crystal display of claim 31 further comprising a plurality of thin film transistors for respectively controlling each of the pixel units.

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Claim 39 (currently amended): The liquid crystal display of claim 38 wherein the thin film transistors ~~[[is]]~~ are formed on the lower substrate and below the upper substrate.

5 Claim 40 (new): The liquid crystal display of claim 20 wherein each of the curved convex structures comprises a smooth surface.

Claim 41 (new): The liquid crystal display of claim 20 wherein each of the curved convex structures comprises a spherical surface.

10 Claim 42 (new): The liquid crystal display of claim 20 wherein each of the pixel units comprises three of the color filters having a plurality of the curved convex structure respectively.

15 Claim 43 (new): The liquid crystal display of claim 20 wherein the curved convex structures have non-uniform sizes.

Claim 44 (new): The liquid crystal display of claim 31 wherein each of the curved convex structures comprises a smooth surface.

20 Claim 45 (new): The liquid crystal display of claim 31 wherein each of the curved convex structures comprises a spherical surface.

25 Claim 46 (new): The liquid crystal display of claim 31 wherein each of the pixel units comprises three of the color filters having a plurality of the curved convex structure respectively.

Claim 47 (new): The liquid crystal display of claim 31 wherein the curved convex structures have non-uniform sizes.